REMARKS

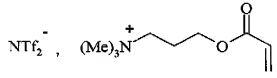
Election of Species

The Official Action requested that applicant elect a single disclosed species, i.e., a single process where all reactants, reaction steps and products are specified.

Responsive to this requirement, applicant provisionally elects the Heck reaction, with traverse.

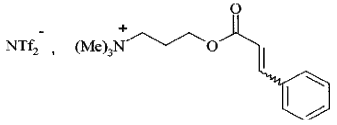
The reactants, reaction steps and products are described for the Heck reaction process at page 106, table 5, test 3 of the present specification.

The reactants are aryl iodide and the functionalized onium salt according to the formula:



The reaction step is a Heck coupling reaction. The solvent is CH_3CN. The reaction is carried out at 100°C for 1 hour. The catalyst is 1% $Pd(OAc)_2$. The base is K_2CO_3.

The product obtained is of formula:



E/Z ratio is >99/1.

Applicant believes that claims 31-39, 45-47, 49, 50 and 58 are readable upon the elected species.

Reasons for traverse

The traverse is made on the basis that the present invention subject matter is the onium salt as soluble support for organic synthesis. Diels-Alder reaction, Suzuki coupling, Heck coupling, Grieco reaction, etc ... are merely examples of the organic synthesis possibilities of this new support.

The person skilled in the art knows that a soluble support is a tool to enable synthesis, and that this tool cannot be restricted to a very special type of reaction.

The present invention should not be restricted to a specific palladium catalyzed coupling reaction when examples have been produced to prove that this support is efficient in different types of organic synthesis reactions.

Moreover, the present invention represents an improvement of the prior art in field of soluble support.

The prior soluble supports described in the art are mostly polymers such as PEG (polyethylene glycol). They have a low specific charge. Modifications of these polymers in order to increase their specific charge have been troublesome because of stability and solubility issues. Soluble supports based on dendrimers are known to present a high specific charge, to be chemically stable, and to have a good solubility. However their

terminal functionalizations are not chemically homogenous and may lead to selectivity issues. Both PEG type and dendrimer type soluble supports have a low specific charge with respect to their molecular weight. This feature is a major drawback for spectroscopic investigation of the reacting mixture, and may cause viscosity problem at high concentrations. Purification issues should also be mentioned.

In the present invention soluble supports are ionic liquids. They have a low molecular weight and thus a good molecular weight - specific charge ratio. They are highly soluble in polar solvents and easy to purify. Moreover their chemical synthesis is straightforward and allows a vast diversity of functionalizations.

The present invention supports offer all the advantages of the prior art supports, but without the drawbacks due to a low molecular weight - specific charge ratio.

Conclusion

A favorable action on the merits of the all the claims, in their full scope, is respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or

credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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